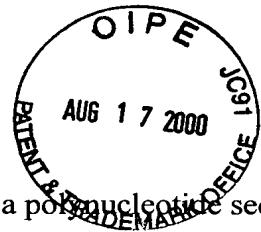


Appendix



29. An isolated nucleic acid molecule comprising a polynucleotide sequence that is at least 90% identical to a polynucleotide sequence selected from the group consisting of:

- (a) a polynucleotide sequence encoding amino acid residues 1 to 133 of SEQ ID NO:2;
- (b) a polynucleotide sequence encoding amino acid residues 2 to 133 of SEQ ID NO:2;
- (c) a polynucleotide sequence encoding the full-length polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 209053;
- (d) a polynucleotide sequence encoding the full-length polypeptide, minus the N-terminal methionine residue, having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 209053; and
- (e) a polynucleotide sequence complementary to any of the nucleic acid sequences in (a), (b), (c), or (d), above.

30. The isolated nucleic acid molecule of claim 29 which comprises polynucleotide sequence (a).

31. The isolated nucleic acid molecule of claim 29 which comprises polynucleotide sequence (b).

32. The isolated nucleic acid molecule of claim 29 which comprises polynucleotide sequence (c).

33. The isolated nucleic acid molecule of claim 29 which comprises polynucleotide sequence (d).

34. The isolated nucleic acid molecule of claim 29 which comprises polynucleotide sequence (e).

35. (Amended) The isolated nucleic acid molecule of claim 29 comprising a heterologous polynucleotide sequence.

36. The isolated nucleic acid molecule of claim 35 wherein the heterologous polynucleotide sequence encodes a heterologous polypeptide.

37. The isolated nucleic acid molecule of claim 36 wherein the heterologous polypeptide is the Fc domain of immunoglobulin.

38. A recombinant vector comprising the isolated nucleic acid molecule of claim 29.

39. (Amended) The recombinant vector of claim 38 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

40. (Amended) A host cell comprising the vector of claim 38.

41. (Amended) A recombinant host cell comprising the nucleic acid molecule of claim 29 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

42. (Canceled)

43. A composition comprising the polynucleotide of claim 29 and a pharmaceutically acceptable carrier.

44. (Amended) An isolated nucleic acid molecule comprising a polynucleotide sequence selected from the group consisting of:

(a) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 65 to 70 of SEQ ID NO:2;

- (b) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 118 to 124 of SEQ ID NO:2;
- (c) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 1 to 20 of SEQ ID NO:2;
- (d) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 1 to 66 of SEQ ID NO:2;
- (e) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 5 to 108 of SEQ ID NO:2;
- (f) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 5 to 128 of SEQ ID NO:2;
- (g) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 21 to 40 of SEQ ID NO:2;
- (h) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 40 to 108 of SEQ ID NO:2;
- (i) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 41 to 60 of SEQ ID NO:2;
- (j) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 47 to 108 of SEQ ID NO:2;
- (k) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 61 to 80 of SEQ ID NO:2;
- (l) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 65 to 108 of SEQ ID NO:2;
- (m) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 65 to 128 of SEQ ID NO:2;
- (n) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 81 to 100 of SEQ ID NO:2;
- (o) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 88 to 108 of SEQ ID NO:2;
- (p) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 88 to 128 of SEQ ID NO:2;
- (q) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 108 to 120 of SEQ ID NO:2;

(r) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 114 to 128 of SEQ ID NO:2;

(s) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 101 to 133 of SEQ ID NO:2;

(t) a polynucleotide sequence encoding the amino acid sequence of amino acid residues 47 to 128 of SEQ ID NO:2; and

(u) a polynucleotide sequence complementary to (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n), (o), (p), (q), (r), (s) or (t) above; wherein said polynucleotide sequence of (a)-(t) is operatively associated with transcription and translation regulatory elements to direct transcription and translation of a polypeptide comprising said amino acid sequence.

45. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (a).

46. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (b).

47. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (c).

48. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (d).

49. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (e).

50. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (f).

51. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (g).

52. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (h).

53. (Amended) The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (i).

54. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (j).

55. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (k).

56. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (l).

57. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (m).

58. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (n).

59. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (o).

60. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (p).

61. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (q).

62. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (r).

63. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (s).

64. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (t).

65. The isolated nucleic acid molecule of claim 44 which comprises polynucleotide sequence (u).

66. (Amended) The isolated nucleic acid molecule of claim 44 comprising a heterologous polynucleotide sequence.

67. The isolated nucleic acid molecule of claim 66 wherein the heterologous polynucleotide sequence encodes a heterologous polypeptide.

68. (Amended) The isolated nucleic acid molecule of claim 67 wherein the heterologous polypeptide is the Fc domain of immunoglobulin fused to said amino acid sequence.

69. A recombinant vector comprising the isolated nucleic acid molecule of claim 44.

70. (Amended) The recombinant vector of claim 69 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

71. (Amended) A host cell comprising the vector of claim 69.

72. (Amended) A recombinant host cell comprising the nucleic acid molecule

of claim 44 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

73. (Amended) A method for producing a polypeptide encoded by the nucleic acid molecule of claim 44 (a) - (t), comprising:

- (a) culturing a host cell comprising the nucleic acid molecule under conditions suitable to produce the polypeptide; and
- (b) recovering the polypeptide from the cell culture.

74. A composition comprising the polynucleotide of claim 44 and a pharmaceutically acceptable carrier.

75. (Amended) An isolated nucleic acid molecule comprising a polynucleotide sequence encoding a polypeptide comprising at least 30 contiguous amino acids of SEQ ID NO:2, wherein said polynucleotide sequence is operatively associated with transcription and translation regulatory elements to direct transcription and translation of said polypeptide.

76. (Amended) The isolated nucleic acid molecule of claim 75 wherein said polypeptide comprises at least 50 contiguous amino acids of SEQ ID NO:2.

77. (Amended) The isolated nucleic acid molecule of claim 75 comprising a heterologous polynucleotide sequence.

78. The isolated nucleic acid molecule of claim 77 wherein the heterologous polynucleotide sequence encodes a heterologous polypeptide.

79. (Amended) The isolated nucleic acid molecule of claim 78 wherein the heterologous polypeptide is the Fc domain of immunoglobulin fused to said polypeptide.

80. A recombinant vector comprising the isolated nucleic acid molecule of claim 75.

81. The recombinant vector of claim 80 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

82. (Amended) A host cell comprising the vector of claim 80.

83. (Amended) A recombinant host cell comprising the nucleic acid molecule of claim 75 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

84. (Amended) A method for producing a polypeptide encoded by the nucleic acid molecule of claim 75, comprising:

- (a) culturing a host cell comprising the nucleic acid molecule under conditions suitable to produce the polypeptide; and
- (b) recovering the polypeptide from the cell culture.

85. (Amended) A composition comprising the nucleic acid molecule of claim 75 and a pharmaceutically acceptable carrier.

86. (Amended) The isolated nucleic acid molecule of claim 29 wherein said polynucleotide sequence is at least 95% identical to a polynucleotide sequence selected from the group consisting of

- (a) a polynucleotide sequence encoding amino acid residues 1 to 133 of SEQ ID NO:2;
- (b) a polynucleotide sequence encoding amino acid residues 2 to 133 of SEQ ID NO:2;
- (c) a polynucleotide sequence encoding the full-length polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 209053;

(d) a polynucleotide sequence encoding the full-length polypeptide, minus the N-terminal methionine residue, having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 209053; and

(e) a polynucleotide sequence complementary to any of the nucleic acid sequences in (a), (b), (c), or (d), above.

87. (Amended) The isolated nucleic acid of claim 86 comprising a heterologous polynucleotide sequence.

88. The isolated nucleic acid of claim 87 wherein the heterologous polynucleotide sequence encodes a heterologous polypeptide.

89. The isolated nucleic acid molecule of claim 88 wherein the heterologous polypeptide is the Fc domain of immunoglobulin.

90. A recombinant vector comprising the isolated nucleic acid molecule of claim 86.

91. (Amended) The recombinant vector of claim 90 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

92. (Amended) A host cell comprising the vector of claim 90.

93. (Amended) A recombinant host cell comprising the nucleic acid molecule of claim 86 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

94. (Canceled)

95. A composition comprising the nucleic acid of claim 86 and a pharmaceutically acceptable.

96. (Canceled)

97. (Canceled)

98. (Canceled)

99. (Canceled)

100. (Canceled)

101. (Canceled)

102. (Canceled)

103. (Canceled)

104. (Canceled)

105. (Canceled)

106. (New) An isolated nucleic acid molecule comprising a polynucleotide sequence encoding a first amino acid sequence at least 95% identical to a second amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acids 1 to 133 of SEQ ID NO:2;

(b) the amino acid sequence of amino acids 2-133 of SEQ ID NO:2;

(c) the amino acid sequence of the full-length polypeptide encoded by the cDNA clone contained in ATCC Deposit No. 209053; and

(d) the amino acid sequence of the full-length polypeptide, minus the N-terminal methionine residue, encoded by the cDNA clone contained in ATCC Deposit No. 209053.

107. (New) The isolated nucleic acid molecule of claim 106 wherein the second amino acid sequence is (a).

108. (New) The isolated nucleic acid molecule of claim 106 wherein the second amino acid sequence is (b).

109. (New) The isolated nucleic acid molecule of claim 106 wherein the second amino acid sequence is (c).

110. (New) The isolated nucleic acid molecule of claim 106 wherein the second amino acid sequence is (d).

111. (New) The isolated nucleic acid molecule of claim 106 wherein the second amino acid sequence is (e).

112. (New) The isolated nucleic acid molecule of claim 106 comprising a heterologous polynucleotide sequence.

113. (New) The isolated nucleic acid molecule of claim 112 wherein the heterologous polynucleotide sequence encodes a heterologous polypeptide.

114. (New) The isolated nucleic acid molecule of claim 113 wherein the heterologous polypeptide is the Fc domain of immunoglobulin fused to said first amino acid sequence.

115. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 106.

116. (New) The recombinant vector of claim 115 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

117. (New) A host cell comprising the vector of claim 115.

118. (New) A recombinant host cell comprising the nucleic acid molecule of claim 106, wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

119. (New) A method for producing a polypeptide encoded by the nucleic acid molecule of claim 106, comprising:

- (a) culturing a host cell comprising the nucleic acid molecule under conditions suitable to produce the polypeptide; and
- (b) recovering the polypeptide from the cell culture.

120. (New) A composition comprising the nucleic acid molecule of claim 106 and a pharmaceutically acceptable carrier.

121. (New) An isolated nucleic acid molecule comprising a polynucleotide sequence encoding a first amino acid sequence that is identical, except for at least one conservative amino acid substitution, to a second amino acid sequence selected from the group consisting of:

- (a) the amino acid sequence of amino acids 1 to 133 of SEQ ID NO:2;
- (b) the amino acid sequence of amino acids 2-133 of SEQ ID NO:2;
- (c) the amino acid sequence of the full-length polypeptide encoded by the cDNA clone contained in ATCC Deposit No. 209053; and
- (d) the amino acid sequence of the full-length polypeptide, minus the N-terminal methionine residue, encoded by the cDNA clone contained in ATCC Deposit No. 209053.

122. (New) The isolated nucleic acid molecule of claim 121 wherein the second amino acid sequence is (a).

123. (New) The isolated nucleic acid molecule of claim 121 wherein the second amino acid sequence is (b).

124. (New) The isolated nucleic acid molecule of claim 121 wherein the second amino acid sequence is (c).

125. (New) The isolated nucleic acid molecule of claim 121 wherein the second amino acid sequence is (d).

126. (New) The isolated nucleic acid molecule of claim 121 wherein the second amino acid sequence is (e).

127. (New) The isolated nucleic acid molecule of claim 121 that contains from 1 to 5 conservative substitutions.

128. (New) The isolated nucleic acid molecule of claim 127, wherein said polynucleotide sequence is operatively associated with transcription and translation regulatory elements to direct transcription and translation of said amino acid sequence.

129. (New) The isolated nucleic acid molecule of claim 121 comprising a heterologous polynucleotide sequence.

130. (New) The isolated nucleic acid molecule of claim 129 wherein the heterologous polynucleotide sequence encodes a heterologous polypeptide.

131. (New) The isolated nucleic acid molecule of claim 130 wherein the heterologous polypeptide is the Fc domain of immunoglobulin fused to said first amino acid sequence.

132. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 121.

133. (New) The recombinant vector of claim 132 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

134. (New) A host cell comprising the vector of claim 132.

135. (New) A recombinant host cell comprising the nucleic acid molecule of claim 129 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

136. (New) A method for producing a polypeptide encoded by the nucleic acid molecule of claim 121, comprising:

- (a) culturing a host cell comprising the nucleic acid molecule under conditions suitable to produce the polypeptide; and
- (b) recovering the polypeptide from the cell culture.

137. (New) A composition comprising the nucleic acid molecule of claim 121 and a pharmaceutically acceptable carrier.

138. (New) The isolated nucleic acid molecule of claim 127 comprising a heterologous polynucleotide sequence.

139. (New) The isolated nucleic acid molecule of claim 138 wherein the heterologous polynucleotide sequence encodes a heterologous polypeptide.

140. (New) The isolated nucleic acid molecule of claim 139 wherein the heterologous polypeptide is the Fc domain of immunoglobulin fused to said first amino acid sequence.

141. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 127.
142. (New) The recombinant vector of claim 141 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.
143. (New) A host cell comprising vector of claim 141.
144. (New) A recombinant host cell comprising the nucleic acid molecule of claim 127 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.
145. (New) A method for producing a polypeptide encoded by the nucleic acid molecule of claim 127, comprising:
- (a) culturing a host cell comprising the nucleic acid molecule under conditions suitable to produce the polypeptide; and
 - (b) recovering the polypeptide from the cell culture.
146. (New) The isolated nucleic acid molecule of claim 76 comprising a heterologous polynucleotide sequence.
147. (New) The isolated nucleic acid molecule of claim 146 wherein the heterologous polynucleotide sequence encodes a heterologous polypeptide.
148. (New) The isolated nucleic acid molecule of claim 147 wherein the heterologous polypeptide is the Fc domain of immunoglobulin fused to said polypeptide.
149. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 76.

150. (New) The recombinant vector of claim 149 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

151. (New) A host cell comprising the vector of claim 149.

152. (New) A recombinant host cell comprising the nucleic acid molecule of claim 76 wherein the polynucleotide sequence is operably associated with a heterologous regulatory sequence that controls gene expression.

153. (New) A method for producing a polypeptide encoded by the nucleic acid molecule of claim 77, comprising:

- (a) culturing a host cell comprising the nucleic acid molecule under conditions suitable to produce the polypeptide; and
- (b) recovering the polypeptide from the cell culture.